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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/083,446

DATE: 03/14/2002  
TIME: 12:23:41

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF3\03142002\J083446.raw

## SEQUENCE LISTING

## 4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: Abrams, Mark A.  
7 Bauer, S. C.  
8 Braford-Goldberg, Sarah R.  
9 Caparon, Maire H.  
10 Easton, Alan M.  
11 Klein, Barbara K.  
12 McKearn, John P.  
13 Olins, Peter O.  
14 Paik, Kumnan  
15 Thomas, John W.

17 (ii) TITLE OF INVENTION: Methods Of Ex-Vivo Expansion Of Hematopoietic Cells  
18 Using Multivariant (IL-3) Hematopoiesis Chimera Proteins

20 (iii) NUMBER OF SEQUENCES: 197

22 (iv) CORRESPONDENCE ADDRESS:

23 (A) ADDRESSEE: S. Christopher Bauer, Pharmacia Corporation  
24 Corporate Patent Dept., Mail Zone 04E

25 (B) STREET: 800 N. Lindbergh

26 (C) CITY: St. Louis

27 (D) STATE: Missouri

28 (E) COUNTRY: USA

29 (F) ZIP: 63167

31 (v) COMPUTER READABLE FORM:

32 (A) MEDIUM TYPE: Floppy disk

33 (B) COMPUTER: IBM PC compatible

34 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

35 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

37 (vi) CURRENT APPLICATION DATA:

C--> 38 (A) APPLICATION NUMBER: US/10/083,446

C--> 39 (B) FILING DATE: 26-Feb-2002

40 (C) CLASSIFICATION:

50 (vii) PRIOR APPLICATION DATA:

43 (A) APPLICATION NUMBER: 08/762,227

44 (B) FILING DATE: 09-DEC-1996

47 (A) APPLICATION NUMBER: US 08/192,325

48 (B) FILING DATE: 14-FEB-1994

51 (A) APPLICATION NUMBER: US 08/446,872

52 (B) FILING DATE: 06-JUN-1995

55 (viii) ATTORNEY/AGENT INFORMATION:

56 (A) NAME: S. Christopher Bauer

57 (B) REGISTRATION NUMBER: 42,305

58 (C) REFERENCE/DOCKET NUMBER: C-2790/6

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60 (ix) TELECOMMUNICATION INFORMATION:  
61 (A) TELEPHONE: (636)737-6257  
62 (B) TELEFAX: (636)737-5452  
65 (2) INFORMATION FOR SEQ ID NO: 1:  
67 (i) SEQUENCE CHARACTERISTICS:  
68 (A) LENGTH: 133 amino acids  
69 (B) TYPE: amino acid  
70 (D) TOPOLOGY: linear  
72 (ii) MOLECULE TYPE: peptide  
75 (ix) FEATURE:  
76 (A) NAME/KEY: Modified-site  
77 (B) LOCATION: 1  
78 (D) OTHER INFORMATION: /note= "Met- may or may not precede the  
79 amino acid in position 1"  
81 (ix) FEATURE:  
82 (A) NAME/KEY: Modified-site  
83 (B) LOCATION: 17  
84 (D) OTHER INFORMATION: /note= "Xaa at position 17 is Ser,  
85 Lys, Gly, Asp, Met, Gln, or Arg"  
87 (ix) FEATURE:  
88 (A) NAME/KEY: Modified-site  
89 (B) LOCATION: 18  
90 (D) OTHER INFORMATION: /note= "Xaa at position 18 is Asn,  
91 His, Leu, Ile, Phe, Arg, or Gln"  
93 (ix) FEATURE:  
94 (A) NAME/KEY: Modified-site  
95 (B) LOCATION: 19  
96 (D) OTHER INFORMATION: /note= "Xaa at position 19 is Met,  
97 Phe, Ile, Arg, Gly, Ala, or Cys"  
99 (ix) FEATURE:  
100 (A) NAME/KEY: Modified-site  
101 (B) LOCATION: 20  
102 (D) OTHER INFORMATION: /note= "Xaa at position 20 is Ile,  
103 Cys, Gln, Glu, Arg, Pro, or Ala"  
105 (ix) FEATURE:  
106 (A) NAME/KEY: Modified-site  
107 (B) LOCATION: 21  
108 (D) OTHER INFORMATION: /note= "Xaa at position 21 is Asp,  
109 Phe, Lys, Arg, Ala, Gly, Glu, Gln, Asn, Thr, Ser,  
110 or Val"  
112 (ix) FEATURE:  
113 (A) NAME/KEY: Modified-site  
114 (B) LOCATION: 22  
115 (D) OTHER INFORMATION: /note= "Xaa at position 22 is Glu,  
116 Trp, Pro, Ser, Ala, His, Asp, Asn, Gln, Leu, Val,  
117 or Gly"  
119 (ix) FEATURE:  
120 (A) NAME/KEY: Modified-site  
121 (B) LOCATION: 23

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122 (D) OTHER INFORMATION: /note= "Xaa at position 23 is Ile,  
123 Val, Ala, Leu, Gly, Trp, Lys, Phe, Ser, or  
124 Arg"  
126 (ix) FEATURE:  
127 (A) NAME/KEY: Modified-site  
128 (B) LOCATION: 24  
129 (D) OTHER INFORMATION: /note= "Xaa at position 24 is Ile,  
130 Gly, Val, Arg, Ser, Phe, or Leu"  
132 (ix) FEATURE:  
133 (A) NAME/KEY: Modified-site  
134 (B) LOCATION: 25  
135 (D) OTHER INFORMATION: /note= "Xaa at position 25 is Thr,  
136 His, Gly, Gln, Arg, Pro, or Ala"  
138 (ix) FEATURE:  
139 (A) NAME/KEY: Modified-site  
140 (B) LOCATION: 26  
141 (D) OTHER INFORMATION: /note= "Xaa at position 26 is His,  
142 Thr, Phe, Gly, Arg, Ala, or Trp"  
144 (ix) FEATURE:  
145 (A) NAME/KEY: Modified-site  
146 (B) LOCATION: 27  
147 (D) OTHER INFORMATION: /note= "Xaa at position 27 is Leu,  
148 Gly, Arg, Thr, Ser, or Ala"  
150 (ix) FEATURE:  
151 (A) NAME/KEY: Modified-site  
152 (B) LOCATION: 28  
153 (D) OTHER INFORMATION: /note= "Xaa at position 28 is Lys,  
154 Arg, Leu, Gln, Gly, Pro, Val, or Trp"  
156 (ix) FEATURE:  
157 (A) NAME/KEY: Modified-site  
158 (B) LOCATION: 29  
159 (D) OTHER INFORMATION: /note= "Xaa at position 29 is Gln,  
160 Asn, Leu, Pro, Arg, or Val"  
162 (ix) FEATURE:  
163 (A) NAME/KEY: Modified-site  
164 (B) LOCATION: 30  
165 (D) OTHER INFORMATION: /note= "Xaa at position 30 is Pro,  
166 His, Thr, Gly, Asp, Gln, Ser, Leu, or Lys"  
168 (ix) FEATURE:  
169 (A) NAME/KEY: Modified-site  
170 (B) LOCATION: 31  
171 (D) OTHER INFORMATION: /note= "Xaa at position 31 is Pro,  
172 Asp, Gly, Ala, Arg, Leu, or Gln"  
174 (ix) FEATURE:  
175 (A) NAME/KEY: Modified-site  
176 (B) LOCATION: 32  
177 (D) OTHER INFORMATION: /note= "Xaa at position 32 is Leu,  
178 Val, Arg, Gln, Asn, Gly, Ala, or Glu"  
180 (ix) FEATURE:

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181 (A) NAME/KEY: Modified-site  
182 (B) LOCATION: 33  
183 (D) OTHER INFORMATION: /note= "Xaa at position 33 is Pro,  
184 Leu, Gln, Ala, Thr, or Glu"  
186 (ix) FEATURE:  
187 (A) NAME/KEY: Modified-site  
188 (B) LOCATION: 34  
189 (D) OTHER INFORMATION: /note= "Xaa at position 34 is Leu,  
190 Val, Gly, Ser, Lys, Glu, Gln, Thr, Arg, Ala, Phe,  
191 Ile, or Met"  
193 (ix) FEATURE:  
194 (A) NAME/KEY: Modified-site  
195 (B) LOCATION: 35  
196 (D) OTHER INFORMATION: /note= "Xaa at position 35 is Leu,  
197 Ala, Gly, Asn, Pro, Gln, or Val"  
199 (ix) FEATURE:  
200 (A) NAME/KEY: Modified-site  
201 (B) LOCATION: 36  
202 (D) OTHER INFORMATION: /note= "Xaa at position 36 is Asp,  
203 Leu, or Val"  
205 (ix) FEATURE:  
206 (A) NAME/KEY: Modified-site  
207 (B) LOCATION: 37  
208 (D) OTHER INFORMATION: /note= "Xaa at position 37 is Phe,  
209 Ser, Pro, Trp, or Ile"  
211 (ix) FEATURE:  
212 (A) NAME/KEY: Modified-site  
213 (B) LOCATION: 38  
214 (D) OTHER INFORMATION: /note= "Xaa at position 38 is Asn,  
215 or Ala"  
217 (ix) FEATURE:  
218 (A) NAME/KEY: Modified-site  
219 (B) LOCATION: 40  
220 (D) OTHER INFORMATION: /note= "Xaa at position 40 is Leu,  
221 Trp, or Arg"  
223 (ix) FEATURE:  
224 (A) NAME/KEY: Modified-site  
225 (B) LOCATION: 41  
226 (D) OTHER INFORMATION: /note= "Xaa at position 41 is Asn,  
227 Cys, Arg, Leu, His, Met, or Pro"  
229 (ix) FEATURE:  
230 (A) NAME/KEY: Modified-site  
231 (B) LOCATION: 42  
232 (D) OTHER INFORMATION: /note= "Xaa at position 42 is Gly,  
233 Asp, Ser, Cys, Asn, Lys, Thr, Leu, Val, Glu, Phe, Tyr,  
234 Ile, Met, or Ala"  
236 (ix) FEATURE:  
237 (A) NAME/KEY: Modified-site  
238 (B) LOCATION: 43

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239 (D) OTHER INFORMATION: /note= "Xaa at position 43 is Glu,  
240 Asn, Tyr, Leu, Phe, Asp, Ala, Cys, Gln, Arg, Thr, Gly,  
241 or Ser"  
243 (ix) FEATURE:  
244 (A) NAME/KEY: Modified-site  
245 (B) LOCATION: 44  
246 (D) OTHER INFORMATION: /note= "Xaa at position 44 is Asp,  
247 Ser, Leu, Arg, Lys, Thr, Met, Trp, Glu, Asn, Gln, Ala,  
248 or Pro"  
250 (ix) FEATURE:  
251 (A) NAME/KEY: Modified-site  
252 (B) LOCATION: 45  
253 (D) OTHER INFORMATION: /note= "Xaa at position 45 is Gln,  
254 Pro, Phe, Val, Met, Leu, Thr, Lys, Trp, Asp, Asn, Arg,  
255 Ser, Ala, Ile, Glu, or His"  
257 (ix) FEATURE:  
258 (A) NAME/KEY: Modified-site  
259 (B) LOCATION: 46  
260 (D) OTHER INFORMATION: /note= "Xaa at position 46 is Asp,  
261 Phe, Ser, Thr, Cys, Glu, Asn, Gln, Lys, His, Ala, Tyr,  
262 Ile, Val, or Gly"  
264 (ix) FEATURE:  
265 (A) NAME/KEY: Modified-site  
266 (B) LOCATION: 47  
267 (D) OTHER INFORMATION: /note= "Xaa at position 47 is Ile,  
268 Gly, Val, Ser, Arg, Pro, or His"  
270 (ix) FEATURE:  
271 (A) NAME/KEY: Modified-site  
272 (B) LOCATION: 48  
273 (D) OTHER INFORMATION: /note= "Xaa at position 48 is Leu,  
274 Ser, Cys, Arg, Ile, His, Phe, Glu, Lys, Thr, Ala, Met,  
275 Val, or Asn"  
277 (ix) FEATURE:  
278 (A) NAME/KEY: Modified-site  
279 (B) LOCATION: 49  
280 (D) OTHER INFORMATION: /note= "Xaa at position 49 is Met,  
281 Arg, Ala, Gly, Pro, Asn, His, or Asp"  
283 (ix) FEATURE:  
284 (A) NAME/KEY: Modified-site  
285 (B) LOCATION: 50  
286 (D) OTHER INFORMATION: /note= "Xaa at position 50 is Glu,  
287 Leu, Thr, Asp, Tyr, Lys, Asn, Ser, Ala, Ile, Val, His,  
288 Phe, Met, or Gln"  
290 (ix) FEATURE:  
291 (A) NAME/KEY: Modified-site  
292 (B) LOCATION: 51  
293 (D) OTHER INFORMATION: /note= "Xaa at position 51 is Asn,  
294 Arg, Met, Pro, Ser, Thr, or His"  
296 (ix) FEATURE:

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/083,446

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Input Set : A:\PTO.VSK.txt

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L:38 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:39 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:755 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:895 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:926 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:1146 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:1216 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1228 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:1481 M:220 C: Keyword misspelled or invalid format, [(ix) FEATURE:]  
L:1552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:1570 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:2250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:2308 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:2649 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:2714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:2732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:3044 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3047 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3050 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3053 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3056 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

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L:3059 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:3091 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]  
L:3138 M:220 C: Keyword misspelled or invalid format, [(B) LOCATION:]  
L:3354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3372 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:3419 M:220 C: Keyword misspelled or invalid format, [(A) NAME/KEY:]  
L:3479 M:220 C: Keyword misspelled or invalid format, [(B) LOCATION:]  
L:3497 M:220 C: Keyword misspelled or invalid format, [(B) LOCATION:]  
L:3573 M:220 C: Keyword misspelled or invalid format, [(B) LOCATION:]  
L:3668 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8